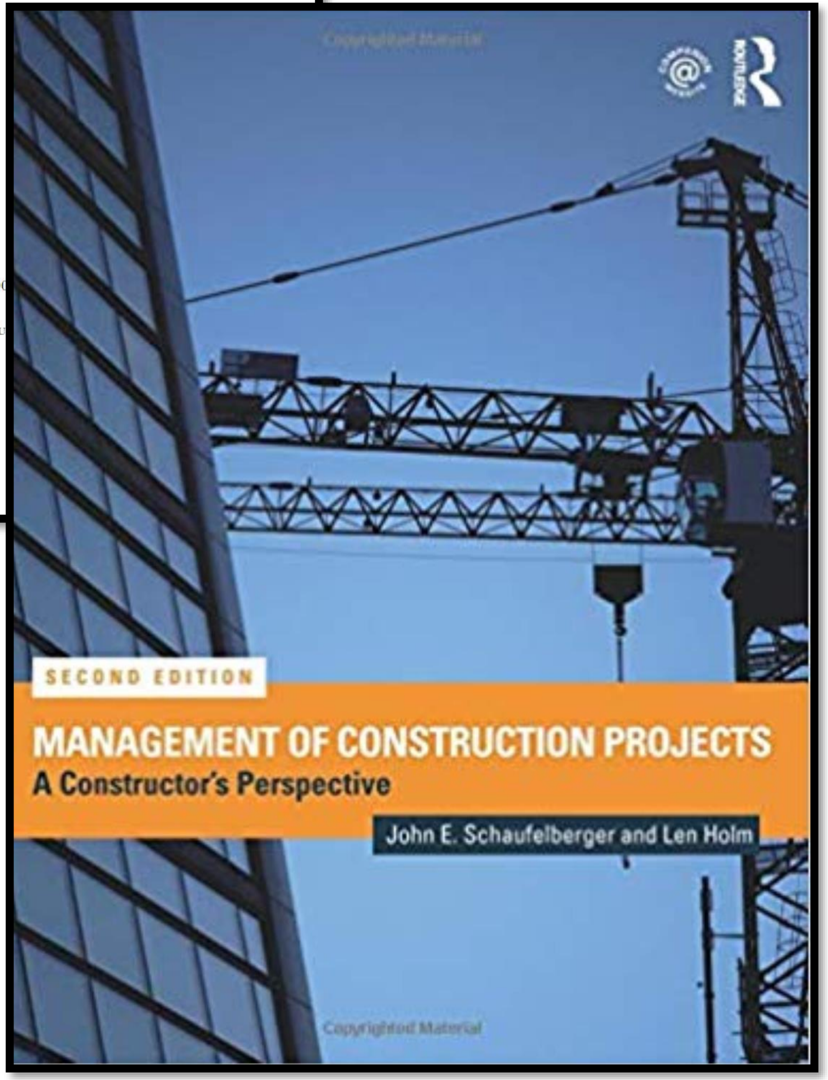
دانشگاه علم و صنعت ایران

Commercial Terms in IPD Contracts

جلسه سیزدهم- مبانی طراحی محیطی،
نظریه و روش‌ها- خرداد ماه ۱۳۹۹

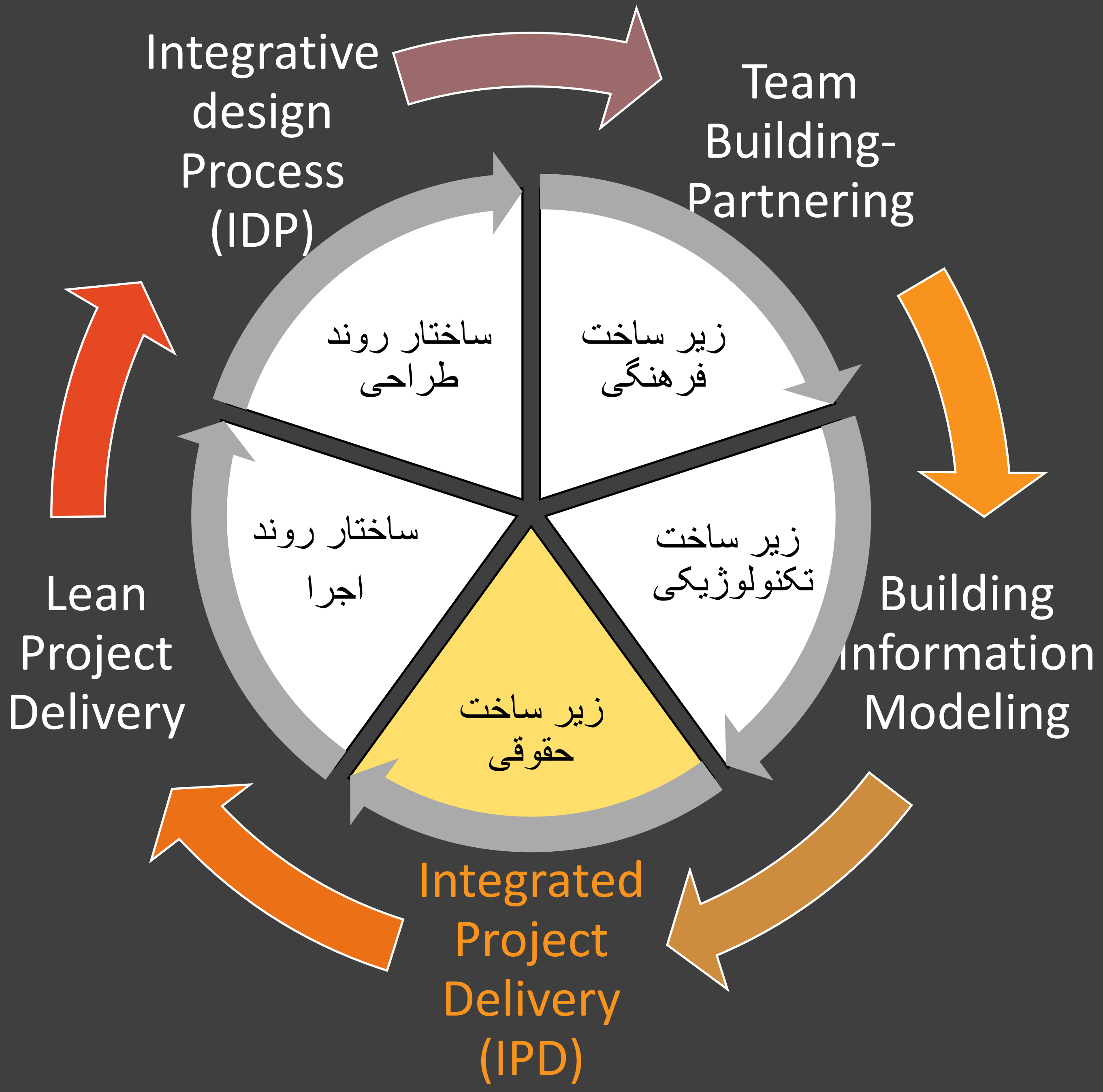

Managing Integrated Project Delivery

CMAA
7926 Jones Branch Drive, Suite 80
McLean, VA 22102-3307
Chuck Thomsen, FAIA, FCMAA; Joel Darrington, Esq., Dennis Du



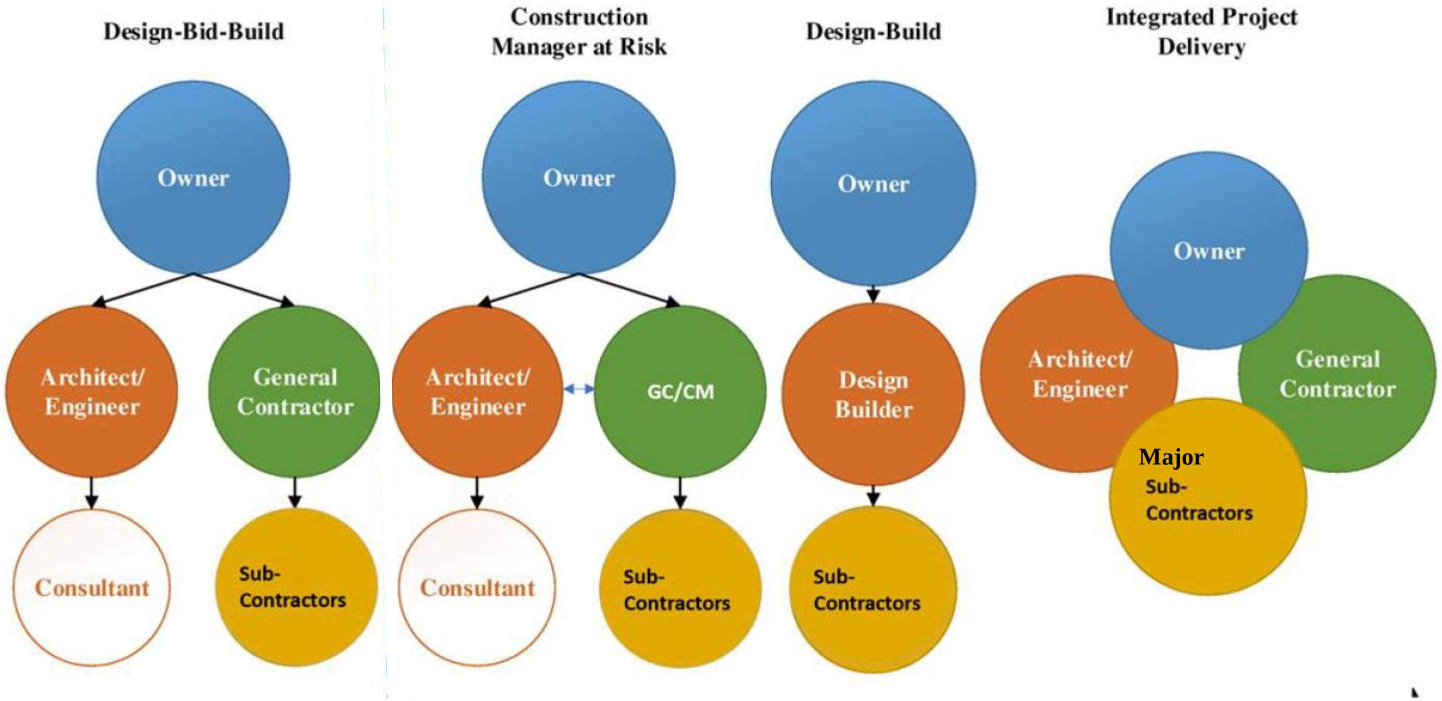
Introduction

- Traditional vs. IPD contracts
- Collective Risk Management
  - Pain sharing & gain sharing
  - Contingency sharing
- Incentives
- Award fees



Traditional vs. IPD contracts

- Traditional Project contracts comprised of many two-party contracts.
- Each Participant operates under commercial terms that provide economic incentive for it to maximize its own interest.
- A key to successful integrated projects: “contract that encourages and rewards organizations for behaving as a team”.



Risk Management in Traditional projects

Who:

"The party that can best manage the risk, should bear the risk".

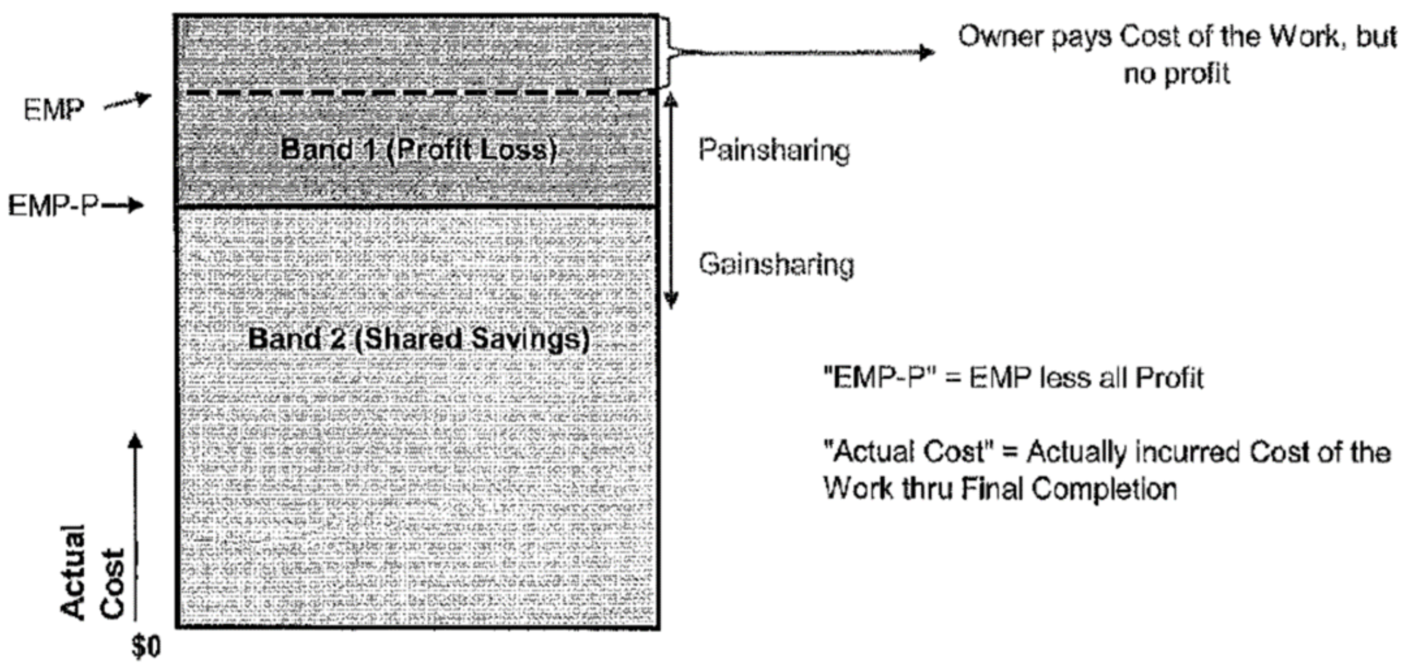
Challenges:

- Sometimes the risks are allocated to the other parties.
- Sometimes there is not one party that is able to effectively manages the risk.
- In complex projects parties can influence the risks.
- There is no incentive for parties to offer help to the risk-bearing parties.

Taking risks that can not be adequately controlled =financial costs:

1. Upfront: increasing contract price
2. Later: Engaging in adversarial behavior

=> The owner pays more for the transaction costs rather than construction costs.

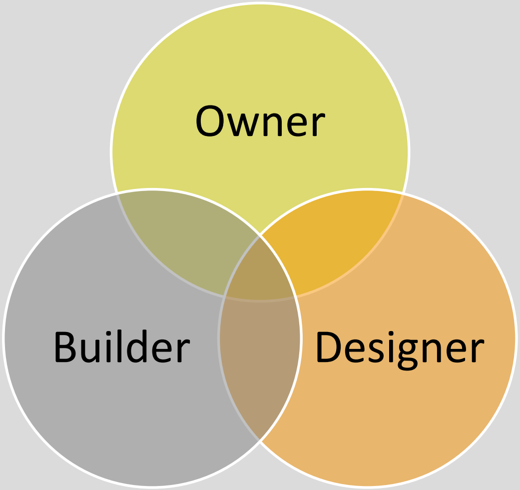


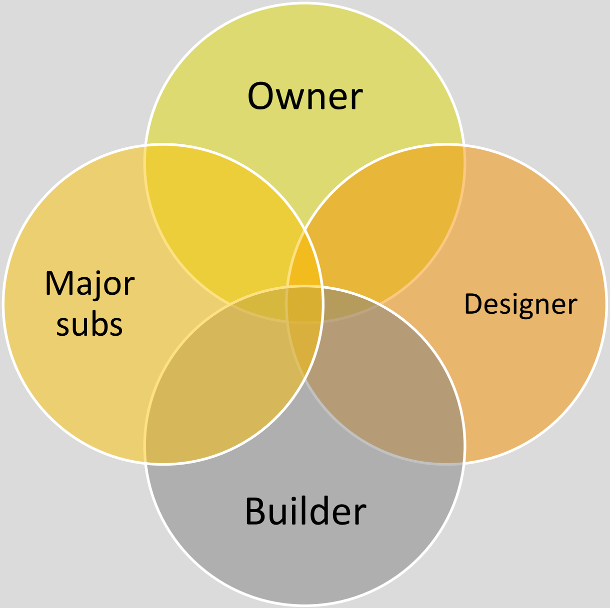
Pain-Sharing-Gain-Sharing

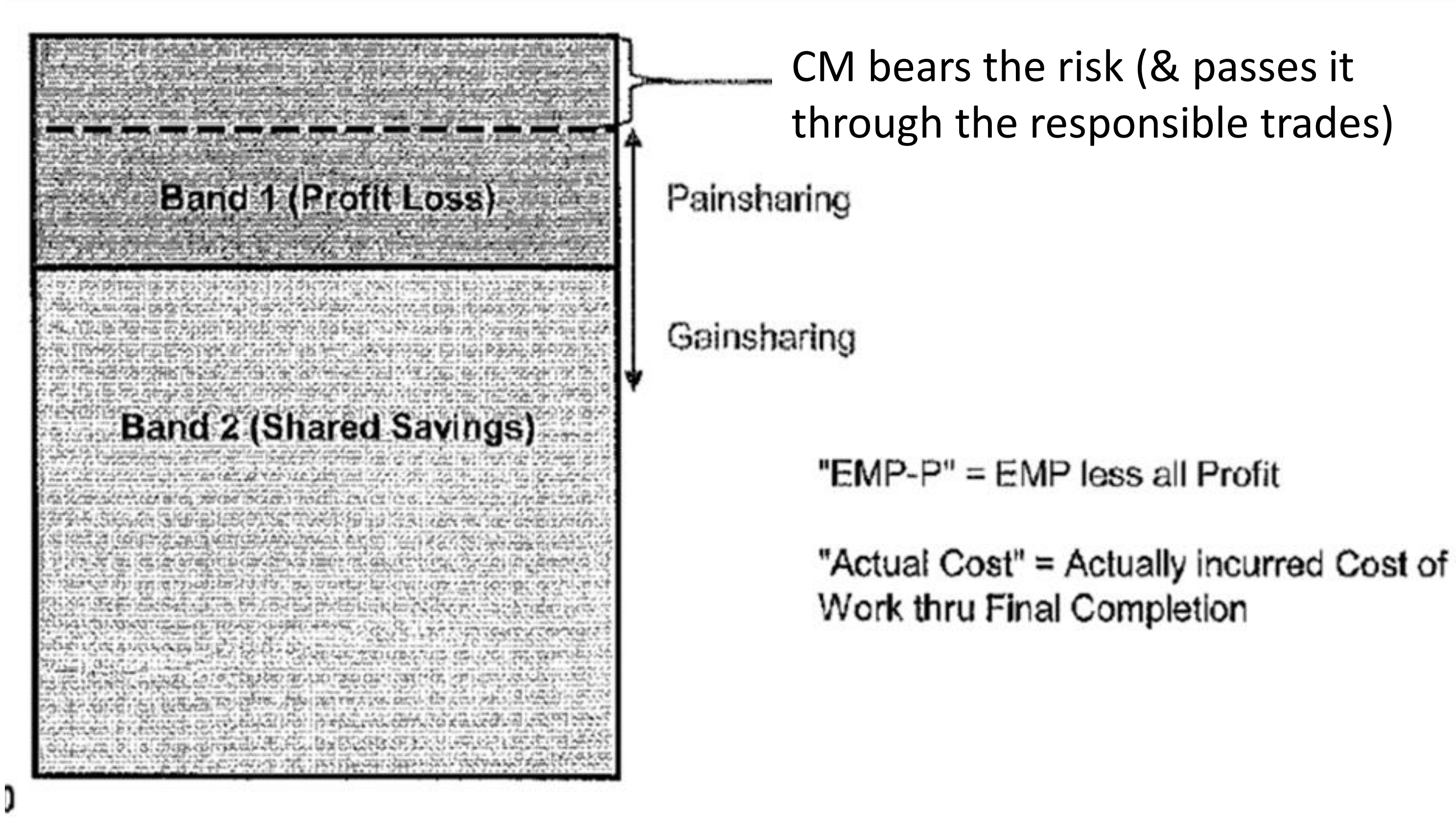
- The project team sets an amount for the expected design and construction cost & share any cost under-runs or overruns.
- Some set an aggressive cost estimate early to stimulate innovation in designing cost-effectively.
- Some set a "**target cost**" first, "**estimated maximum price**" after the design is substantially complete.
- Either way, the design & construction team is reimbursed for their project costs & paid a base fee, with the possibilities of increased fee under incentive program.
- The key team members share the risk of cost over-runs against the agreed cost estimate, with the owner taking the final risk once the actual cost exceeds some threshold.
- Target value design: Design to budget, not budgeting the design!

Potential Problems with Pain-Sharing-Gain-Sharing method

- Without proper leadership and broad enough participation, the close commercial alignment of the major players may be significantly undercut by the more traditional behavior of the non-participating team members.
- Estimators may pad the estimate!
    - ➢ Owners need to be closely involved
- Quality measurement is subjective (without specifications it is hard to perform quality control)
    - ➢ If the agreed cost estimate is set before design, it is an incentive to compromise design and/or reduce scope.
    - ➢ Owner needs to be an active participant in design.
    - ➢ Pain-Sharing-Gain-Sharing program needs to be combined with other performance goal incentives.







Profit Pooling

- Pain-Sharing-Gain-Sharing + GMP=> CM bears the risk of cost overrun
- Some portion of cost under-runs is added to the profit pool & distributed according to the negotiated percentages.

Contingency Sharing

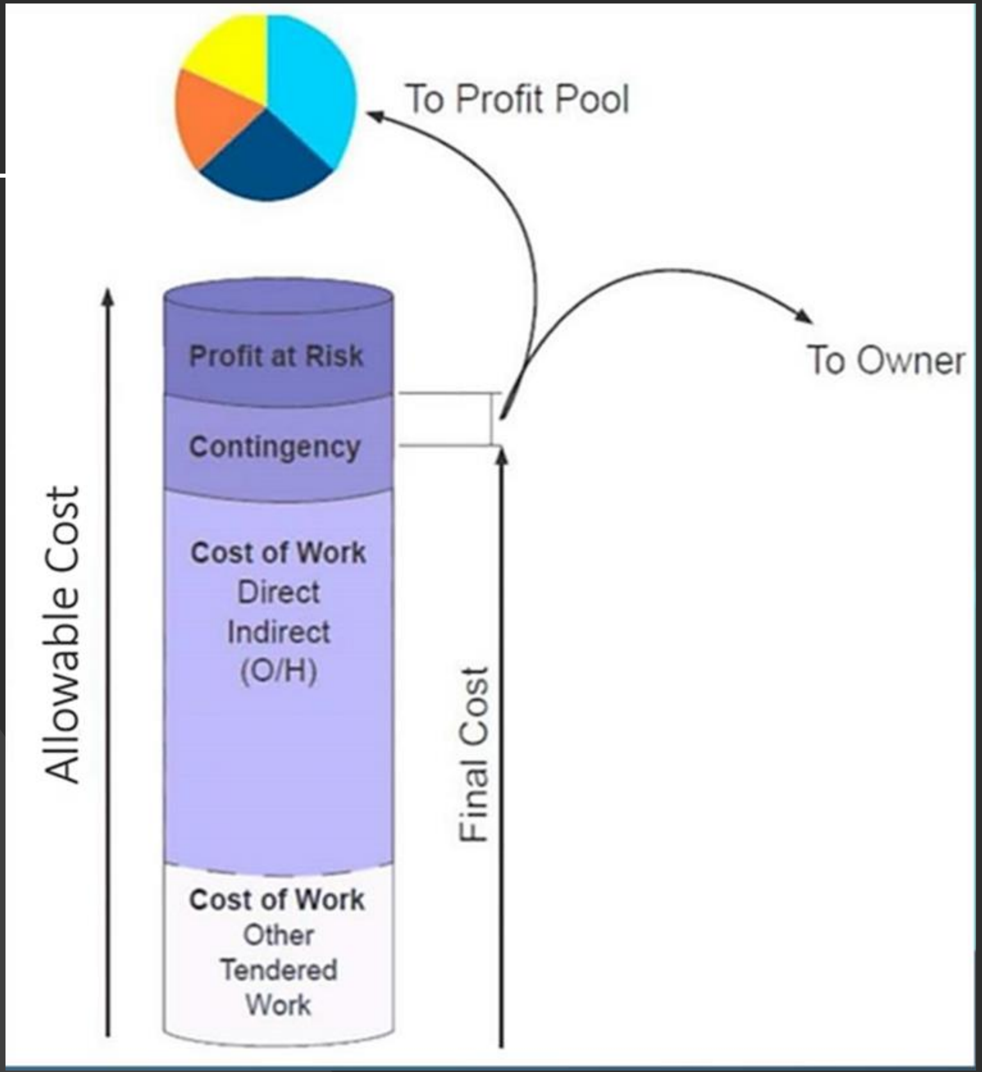
All projects have some amount of contingency to cover unpredictable events. It may be hidden as padding within contract prices or cost estimates

- Explicit contingency fund
- To keep costs out in the open and be involved in the fund's management.
- If the contingency fund is not used, it will be shared among owner & IPD team.
- Reducing the problem of contingency stacking.
- The total amount of contingency on the project is reduced.

Potential Problems with Contingency Sharing

- Hard to manage with Pain-sharing-gain-sharing approach.
- The owner may be tempted to keep the fund too small or to seek to block its use.
- IPD team members may be tempted to blame others for mistakes.

⇒Alternatively, all unspent contingency returns could go to the owner.



Incentive Programs

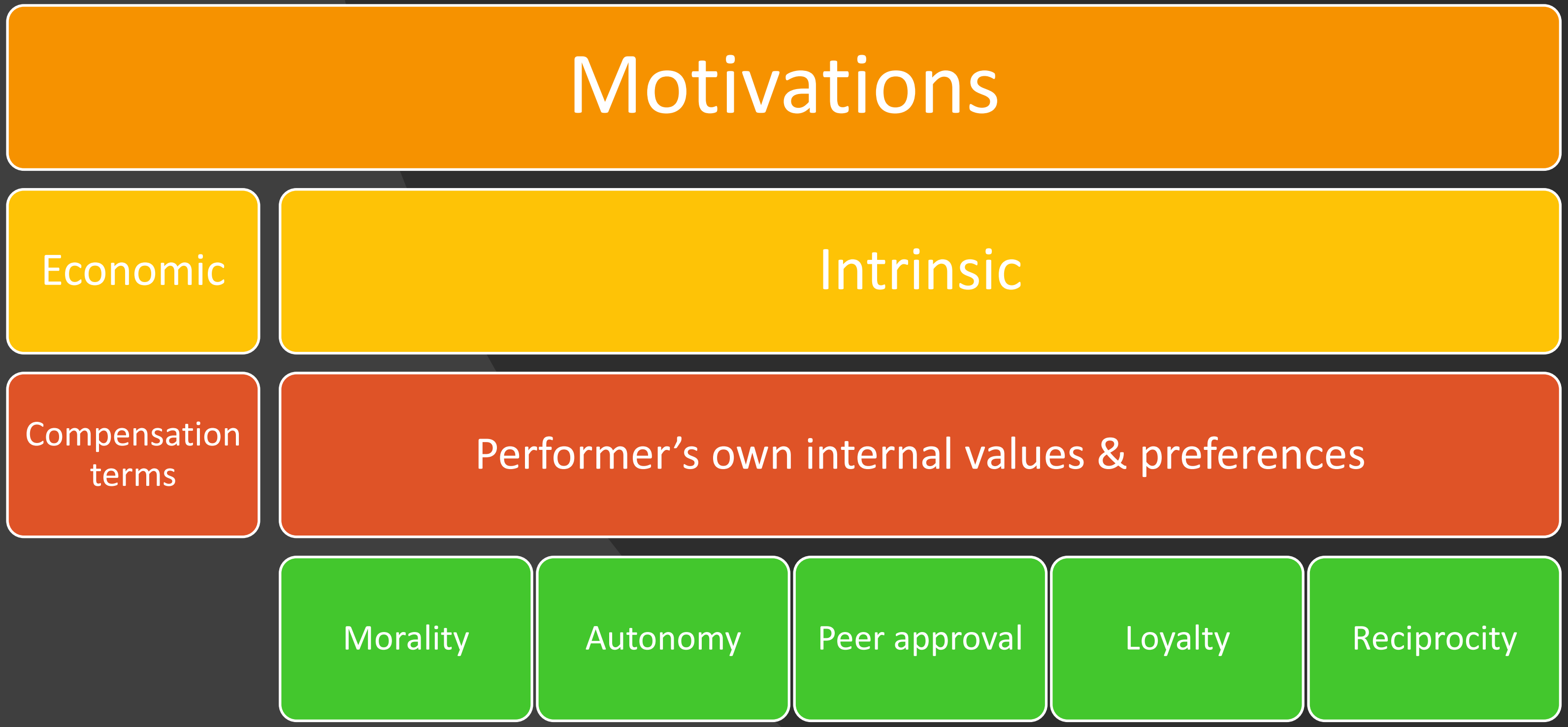
The seller is reimbursed for all allowable costs for performing the contract work and receives a predetermined incentive fee based upon achieving certain performance objectives as set forth in the contract

The choices are:

- Which incentives to include
- How to frame it to communicate what is important to the owner.
- Who should be included.

Care in using Incentive Programs

- Incentives have the potential to create conflict as well as alignment.
- Every action has a reaction.
- Use incentives wisely for areas of project performance where participants normally need added motivation.
- Create a complementary set of incentives that keep key project goals in balance



Care in using Incentive Programs

- The incentive signals the principal’s trust and thus improves self-esteem.

⇒not be too prescriptive.

- Performers participate with the principal in mutually setting goals.

⇒Enhances performer’s sense of autonomy & sense of ownership in project.

- Discussing the results in person

=>shows the principals respect for the performer, reinforcing autonomy and self-esteem.

Award fees

Used in addition to sharing cost savings for achieving non-cost, subjective goals.

The determination of fee is based solely on the subjective determination of seller performance by the buyer, and is generally not subject to appeals.

=> Developing greater trust, reinforcing intrinsic motivations

Award fees

- Using compensation dependent on fairness as opposed to defined quantitative output.

“In trust-based scenarios, both parties act fairly because they know that the other will respond negatively toward unfair treatment, and that would ultimately hurt project performance. Because fairness is not easily quantifiable, the performer makes additional effort to demonstrate her/his trustworthiness.”

Performance Evaluations and Payouts

- How: Periodic as opposed to one time evaluation at the end.

⇒To fix embedded recurring problems.

- Who:
  - Owner representative
  - The IPD management committee
  - project managers from evaluated party
- When to pay:
  - parcel out a portion of the fee as the project progresses and indicate what portion will be earned at which project phase.

Example:

- 10% at the completion of criteria design
- 10% at completion of detailed design
- 5% at completion of implementation documents
- 5% at completion of foundations
- 10% at topping out
- 10% at completion of building envelope
- 40% at substantial completion
- 10% at final completion

Performance Evaluations and Payouts

- How much:
  - Not much! Large amounts (in a large owner bureaucracy) will attract attention from multiple sources & draws significant attention to justify the subjective decisions.
- Flexibility:
  - continuous improvement is key.

The biggest incentive

- Repeat business
- The most important issue for any organization is survival!
- Good reputation is key
- Repeat work will follow good performance!

Questions to Consider for writing the Reflections:

1- WHAT ARE SOME OTHER CONSIDERATIONS IN TAILORING IPD CONTRACTS?

2- WHAT ARE SOME STRATEGIES IN MANAGING IPD PROJECTS?